



Chunghwa Picture Tubes, Ltd.

Technical Specification

To :

Date :

CPT TFT-LCD

CLAA320WA01

ACCEPTED BY :

TENTATIVE

APPROVED BY	CHECKED BY	PREPARED BY
		TFT-LCD Product Planning Management General Division

Product Planning management General Division

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RECORD OF REVISIONS

Revision No.	Date	Page	Description
NEW	2004/03/31	N/A	Preliminary Specification Initiate.

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1. Overview

CLAA320WA11 is 31.51" color TFT-LCD (Thin Film Transistor Liquid Crystal Display) module composed of LCD Panel, Driver ICs, Control Circuit Board, Backlight and Inverter. By applying 8 bit digital data, 1366×768, 16.7M-color images are displayed on the 31.51" diagonal screen. Input power voltage is 12.0V for LCD driving and 24.0V for Inverter. Interface of data and control signals is LVDS.

*Features

- High Contrast Ratio ,High Luminous.
- Wide viewing angle($\pm 170^\circ$).
- PMVA(Premium Multi-Domain Vertical Align) Mode.
- WXGA(1366x768pixels) Resolution(16:9).
- Slim Type.
- Fast Response Time.
- Direct Type 16CCFL.
- LVDS Interface.
- Low Power Consumption.
- High Definition TV.

* General information

Items	Specifications
Display Area(mm)	697.68(H) × 392.25(V) (31.51 inch diagonal)
Number of Pixels	1366(H) × 768(V)
Pixel Pitch(mm)	0.51075(H) × 0.51075(V)
Color Pixel Arrangement	RGB vertical strip
Display Mode	Normally Black
Number of Colors	16.7M (8bits/color)
Surface Treatment	Hard coating : 2H , Anti-reflective coating <less than 1.5% reflection.
Total Module Power(W)	<100W

* Mechanical information

Items			Min	Type.	Max.	Note
Module Size	Horizontal(H)		742.0	743.0	744.0	mm
	Vertical(V)		426.0	447.0	448.0	mm
	Depth(D)	no inverter	41.0	42.0	43.0	mm
		with inverter	43.0	44.0	45.0	mm
Module Weight(g)			--	--	<9000	g

2. Optical Characteristics

Ta = 25°C, VCC=5

Item		Symbol	Condition	Min.	Typ.	Max.	Unit
Contrast Ratio		CR	$\theta = \phi = 0^\circ$	600	800	--	-
Luminance	Center	Lw	$\theta = \phi = 0^\circ$	500	550	--	cd/m ²
	Uniformity	Lw	$\theta = \phi = 0^\circ$	--	72	--	%
Response Time (Gray to Gray)		G-G	$\theta = \phi = 0^\circ$	--	10	--	ms
Color Temperature		K	--	--	10000	--	K
Gamma		r	--	2.0	2.2	2.4	--
Viewing Angle	Horizontal		CR 10	--	-85~85	--	°
	Vertical			--	-85~85	--	°

3. Interface Pin Connection

3.1 CN1(TFT-LCD signal)

Used connector: FI-X30SSL-HF(JAE) or equivalent

Pin	Symbol	Function	Pin	Symbol	Function
1	VCC	Power supply,+12V	16	GND	Ground
2	VCC	Power supply,+12V	17	RxIN3-	Data-
3	GND	Ground	18	RxIN3+	Data+
4	GND	Ground	19	GND	Ground
5	RxIN0-	Data-	20	N.C	--
6	RxIN0+	Data+	21	N.C	--
7	GND	Ground	22	N.C	--
8	RxIN1-	Data-	23	N.C	--
9	RxIN1+	Data+	24	N.C	--
10	GND	Ground	25	N.C	--
11	RxIN2-	Data-	26	N.C	Vcom
12	RxIN2+	Data+	27	DMS	LVDS Receiver
13	GND	Ground	28	GND	Ground
14	RxCLKIN-	Clock-	29	GND	Ground
15	RxCLKIN+	Clock+	30	GND	Ground

3.2 CN2(Inverter unit)

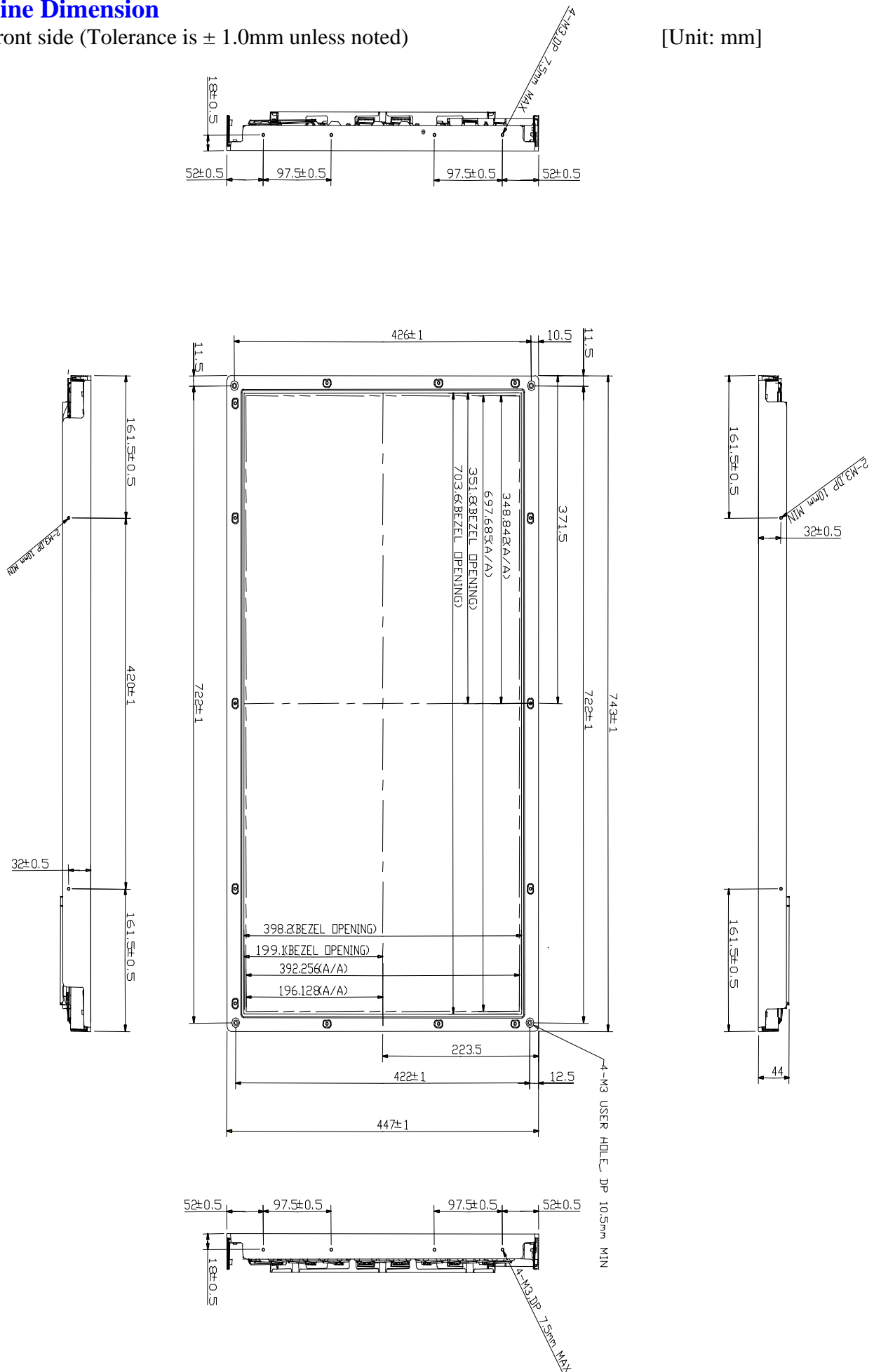
Inverter connector: PHR-14(JST)

Pin No	Signal name	Feature
1	Vcc	Supply Voltage 24V
2	Vcc	Supply Voltage 24V
3	Vcc	Supply Voltage 24V
4	Vcc	Supply Voltage 24V
5	Vcc	Supply Voltage 24V
6	GND	Ground
7	GND	Ground
8	GND	Ground
9	GND	Ground
10	GND	Ground
11	NC	NC
12	ON/OFF	ON/OFF Control
13	Dimming	PWM Dimming/5V Max Lum
14	GND	Ground

4. Outline Dimension

4.1 Front side (Tolerance is $\pm 1.0\text{mm}$ unless noted)

[Unit: mm]



Rear side (Tolerance is $\pm 1.0\text{mm}$ unless noted)

[Unit: mm]

